

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A method for controlling at least a valve that may be deactivated to operate in at least a cylinder of an internal combustion engine, the method comprising:  
operating at least a cylinder in said internal combustion engine;  
adjusting the number of valves that operate in a cycle of said cylinder based at least on an operating condition of at least a vehicle chassis system; **and**  
**adjusting a damping ratio of at least an engine mount in response to operation of said valve.**
2. (original) The method of Claim 1 wherein said operating condition is at least a modal frequency of said vehicle chassis.
3. (original) The method of Claim 1 wherein operation of said valve is further based on said internal combustion engine speed.
4. (original) The method of Claim 1 wherein operation of said valve is further based on the number of active cylinders in said internal combustion engine.
5. (cancelled)

6. (original) The method of Claim 1 wherein said valve is a mechanical actuated valve that may be deactivated.

7. (original) The method of Claim 1 wherein said valve is an electromechanical valve.

8. (currently amended) A method for controlling at least an electromechanically actuated valve to operate in at least a cylinder of an internal combustion engine, the method comprising:  
determining an operating condition a modal frequency of a vehicle chassis system;  
evaluating whether to operate said electromechanical actuated valve in said cylinder based on said operating condition modal frequency;  
operating said electromechanically actuated valve during a cycle of said cylinder based on said evaluation.

9. (cancelled)

10. (original) The method of Claim 8 wherein operation of said electromechanically actuated valve is further based on said internal combustion engine speed.

11. (original) The method of Claim 8 wherein operation of said electromechanically actuated valve is further based on the number of active cylinders in said internal combustion engine.

12. (original) The method of Claim 8 further comprising adjusting a damping ratio of at least an engine mount in response to operation of said electromechanically actuated valve.

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13. (currently amended) A method for controlling at least an electromechanically actuated valve to operate in at least a cylinder of an internal combustion engine, the method comprising:
- determining an operating condition of a vehicle mechanical component;
- evaluating whether to operate said electromechanical actuated valve in said cylinder based on said operating condition;
- operating said selected electromechanically actuated valve during a cycle of said cylinder based on said evaluation; and
- adjusting a damping ratio of at least an engine mount in response to operation of said electromechanically actuated valve.
14. (original) The method of Claim 13 wherein said operating condition is at least a modal frequency of said vehicle mechanical component.
15. (original) The method of Claim 14 wherein said vehicle mechanical component is a bracket.
16. (original) The method of Claim 13 wherein operation of said electromechanically actuated valve is further based on said internal combustion engine speed.
17. (original) The method of Claim 13 wherein operation of said electromechanically actuated valve is further based on the number of active cylinders in said internal combustion engine.

18. (original) The method of Claim 13 wherein said operating condition is at least a modal frequency of a driveshaft.

19. (cancelled)

20. (currently amended) A method for controlling electromechanically actuated valves in an internal combustion engine, the method comprising:

determining an operating condition a modal frequency of a vehicle chassis system;  
evaluating whether to activate a cylinder based on said modal frequency operating condition;

activating said cylinder during a cycle of said cylinder based on said evaluation.

21. (cancelled)

22. (original) The method of Claim 20 wherein operation of said electromechanically actuated valve is further based on said internal combustion engine speed.

23. (currently amended) A computer readable storage medium having stored data representing instructions executable by a computer to control an internal combustion engine of a vehicle, said storage medium comprising:

instructions for operating at least a cylinder in said internal combustion engine with a first number of valves active during a cycle of said cylinder at least during a first vehicle chassis system condition; and

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instructions for operating at least a cylinder in said internal combustion engine with a second number of valves active during a cycle of said cylinder at least during a second vehicle chassis system condition, with said first number different from said second number, and said first vehicle chassis system condition different from said second vehicle chassis condition; and

instructions for adjusting a damping ratio of at least an engine mount in response to said operation of said electromechanically actuated valves.